MD Anaet Ullah
Electronics Engineer (B.Sc.)

Contact

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Languages

- English Professional
- Bangla Native
- German A1

Skills

Embedded Systems:
- Bare-metal & RTOS firmware (C/C++ for ARM, AVR, STM32)
- Low-power optimization, BLE/IoT protocols

Hardware Design:
- High-speed & RF PCB design (KiCAD, Altium)
- Analog/digital circuits, signal integrity, EMI reduction

Testing & Compliance:
- EMC/EMI testing (FCC/CE), power efficiency tuning
- Hands-on with scopes, logic analyzers, spectrum analyzers

Tools:
- KiCAD, LTspice, Eagle.

Microcontrollers:
- AVR, PIC, STM32, NodeMCU, Infineon

Biography

Hello, I am Anaet, Dedicated and detail-oriented Embedded Systems Engineer with 4 years of experience in designing, developing, and testing microcontroller-based systems. Skilled in embedded C/C++, analog and digital circuit design, and working with STM32 microcontrollers. Passionate about creating reliable and high-quality solutions for real-world applications.

Work experience

Electronics Development Engineer — 04/2024 – 05/2025
Vectoflow GmbH – Gilching, Germany.

- Designed and developed aerospace/industrial electronic components, ensuring regulatory compliance.
- Tested and validated components for performance, reliability, and standards adherence.
- Supported firmware development, integration testing, and debugging.
- Conducted quality inspections per **DO-160** and **MIL** standards.
- Troubleshot hardware/firmware issues, improving product reliability.
- Contributed to design reviews and process improvements.
- Performed EMC test accordance with **CISPER** and ICE standard

Embedded System Developer — 03/2023 – 02/2024
Solarnative GmbH – Lohfelden, Germany

- Microcontroller firmware development and programming.
- Micro-inverter functionality design and optimization.
- Wireless communication interface development (LTE, LoRa).
- Technical documentation for hardware and software systems.
- Electronic circuit design and PCB layout development.
- Software testing and debugging against specifications.
- Hardware validation using lab equipment (spectrum analyzer, oscilloscope, LCR meter, signal generators, AC sources).

IoT Engineer — 01/2022 - 07/2022
Code 19 – Dhaka, Bangladesh

- Led IoT product development covering embedded systems, wireless communication (LTE/LoRa), cloud infrastructure, and data analytics.
- Owned full project from concept to deployment, including prototyping and architecture design.
- Developed plug-and-play industrial IoT solutions for scalable device deployment.
- Designed power electronics systems including AC/DC, DC/AC, and DC/DC converters (high & low voltage).
- Maintained compliance with evolving IoT standards and protocols.

Projects

1. Reactive Power Correction for On grid Inverter

- Designed closed-loop control algorithms (DSP-based) to maintain PF >0.98.
- Cut line losses by 15% via optimized reactive power injection

2. High-Efficiency Power Circuit Design

- Developed buck/boost converters (DC-DC) and AC-DC supplies with >92% efficiency
- Improved thermal performance by 20% through PCB layout optimization

3. Vector DAQ 2

- Designed custom PCB with 24-bit ADC and anti-aliasing filters for precision DAQ integration
- Achieved <0.5% repeatability in extreme conditions (-20°C to +85°C)

4. IoT Smart Parking System

- Engineered custom PCB in KiCAD (12V→3.3V DC-DC, 93% efficiency)
- Integrated RFID access control (RC522) and cloud connectivity (Firebase)

References

- ❖ Name: Weik Axel

Position: Software Engineer

Company: Robert Bosch GMBH

Location: Leonberg, Germany

Email: axel.weik@de.bosch.com

- ❖ Name: Tobias Ebus

Position: Head of Development

Company: Vectoflow GmbH

Location: Hechtstr. Munich

Email: tobiebus@web.de

Educations

1. B.Sc. in Electrical and Electronics Engineering Daffodil International University Dhaka, Bangladesh.

   01/2015 – 04/2019

2. Diploma in Electrical Engineering Chittagong Polytechnic Institute. Chattogram, Bangladesh.

   09/2009 – 03/2014

Training

1. Industrial Training.

   12/2012– 02/2013

   Organization: Eastern Cables Limited.

2. General Mechanics (GM).

   01/2018– 06/2018

   Organization: Bangladesh German Technical Training Center.

3. Recognition of Prior Learning (RPL Level-1).

   02/2018 – 02/2018

   Organization: Bangladesh German Technical Training Center.

4. Masterclass on Internet of things (IOT).

   02/2018 – 02/2018

   Organization: Bangladesh Skill Development Institute

Conference & Participation

1. Project Competition & Maker Faire 2018

   IEEE Conference | NSBM Green University, Sri Lanka

2. Tech Fest 2018-2019 – *Reforming the Past*

   Hosted by IIT Bombay, India

3. Project Competition & Maker Faire

   IEEE Event | Stanford International University, Thailand

4. Tech Fest 2018-2019 – *Secure Transportation*

   Hosted by IIT Bombay, India

5. NASA Space Apps Challenge 2019 – *Wildfire Monitor*

   Organized by BASIS, Bangladesh

Thesis

IoT Smart Parking System
- Designed end-to-end IoT solution using ESP8266 nodes with ultrasonic sensors for real-time space detection
- Implemented cloud connectivity (Firebase/MQTT) for live parking maps via mobile app